CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 90-007

NPDES NO. CA0029602

WASTE DISCHARGE REQUIREMENTS FOR:

VIKING MATERIALS COMPANY
1060 SOUTH FIFTH STREET
SAN JOSE, SANTA CLARA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter Board) finds that:

1. Viking Materials Company (hereinafter discharger) owns a door manufacturing facility located at 1060 South Fifth Street in the City of San Jose, Santa Clara County.

2. The discharger, by application dated July 7, 1987 and supplemental information dated July 31 and October 6, 1989, has applied for issuance of waste discharge requirements and a permit to discharge waste under the National Pollutant Discharge Elimination System (NPDES).

3. There was an unauthorized release of an unknown quantity of aviation fuel reported on November 17, 1985. A 1000 gallon underground tank of diesel fuel and a 1000 gallon underground tank of gasoline were both believed to be leaking; however, the presence of diesel fuel was not detected in soil samples taken from the investigation wells that were drilled.

4. Seven monitoring wells have been installed on site. Groundwater monitoring data has indicated that a plume of free product up to 2.2 feet thick is floating on the groundwater table at a depth of approximately 12 to 18 feet below ground surface. The plume has spread laterally up to 80 feet north-northwest from the source. Data also indicated that a dissolved product plume extends laterally at least 60 feet northeast and 75 feet south from the source.

5. Site investigations show that the groundwater beneath the site has been polluted by floating gasoline, dissolved petroleum hydrocarbons, dissolved benzene, toluene, xylenes, ethylbenzene, chloroform, methylene chloride, 1,2-dichloroethane, 1,1,1-trichloroethane, and trichloroethene.

6. The discharger proposes to install a product recovery system

that will recover floating product and effect groundwater drawdown so that product will migrate into the recovery well. Floating product will be drawn off and trucked away. Water and product from the groundwater drawdown pump will pass through a gravity separation tank where product is drawn off and the water is directed through an air stripper and two carbon treatment units to remove the remaining product before discharge to the storm sewer.

7. The Board adopted Resolution No. 88-160 on October 19, 1988. The Resolution urges dischargers of extracted groundwater from groundwater clean up projects to reclaim their effluent and that when reclamation is not technically and economically feasible to discharge to publicly owned treatment works (POTWs). If neither reclamation nor discharge to POTWs is technically and economically feasible, it is the intent of the Board to adopt NPDES permits authorizing the discharge of extracted groundwater.

8. The discharger submitted a report titled "Groundwater Reclamation Feasibility Study", dated June 29, 1989. It reported that reclamation of the groundwater in this area is not technically and economically feasible, and the POTW will not accept the waste. Therefore, the treated effluent will be discharged to the storm sewer.

9. The system will be designed to handle a flow of approximately one gallon per minute or 1440 gallons per day (gpd). Effluent will be discharged through an inlet (to be located between Keyes and Martha Streets) into the concrete lined storm sewer channel adjacent to South Sixth Street. The storm sewer drains into the Guadalupe River approximately 1/2 mile southeast of the San Jose International Airport (see Attachment A).

10. The discharger reports that chemicals may on occasion be utilized in treatment or in the operation and maintenance of the treatment unit.

11. The Board adopted a revised Water Quality Control Plan for the San Francisco Bay Region (Basin Plan) on December 17, 1986. The Basin Plan contains water quality objectives for Guadalupe River, South San Francisco Bay, and contiguous surface waters and ground water.

12. The existing and potential beneficial uses of Guadalupe River, South San Francisco Bay, and contiguous surface waters are:

    a. Groundwater Recharge
    b. Contact and Non-Contact Recreation
    c. Warm Fresh Water Habitat
    d. Wildlife Habitat

e. Fish Spawning and Migration
f. Navigation
g. Commercial and Sport Fishing
h. Preservation of Rare and Endangered Species
i. Shellfish Harvesting
j. Estuarine Habitat
k. Industrial Service Supply

13. The existing and potential beneficial uses of the ground waters in the Santa Clara Valley ground water basin are:
    a. Municipal and Domestic supply
    b. Industrial process supply
    c. Industrial service supply
    d. Agricultural supply

14. The Basin Plan prohibits discharge of wastewater which has "particular characteristics of concern to beneficial uses": (a) "at any point at which the wastewater does not receive a minimum initial dilution ratio of at least 10:1, or into any nontidal water, dead end slough, similar confined water, or any immediate tributary thereof" and (b) "at any point in San Francisco Bay south of the Dumbarton Bridge."

15. The Basin Plan allows for exceptions to the prohibitions referred to in Finding 14 above when it can be demonstrated that a net environmental benefit can be derived as a result of the discharge.

16. Exceptions to the prohibitions referred to in Finding 15, and which apply to the discharge, are warranted because the discharge is an integral part of a program to clean up polluted ground water and thereby produce an environmental benefit, and because receiving water concentrations are expected to be below levels that would affect beneficial uses. Should future studies indicate chronic effects, not currently anticipated, the Board will review the requirements of this order based upon Receiving Water Limitation C.1.e.

17. The Basin Plan prohibits discharge of "all conservative toxic and deleterious substances, above those levels which can be achieved by a program acceptable to the Board, to waters of the Basin." The discharger's groundwater extraction and treatment system and associated operation, maintenance, and monitoring plan constitutes an acceptable control program for minimizing the discharge of toxicants to waters of the State.

18. Effluent limitations of this Order are based on the Basin Plan, State plans and policies, U.S. Environmental Protection Agency guidance, and best engineering and geologic judgement as to best available technology economically achievable.

19. The issuance of waste discharge requirements for this

discharge is exempt from the provisions of Chapter 3 (commencing with Section 21100) of Division 13 of the Public Resources Code (CEQA) pursuant to Section 13389 of the California Water Code.

20. The Board has notified the discharger and interested agencies and persons of its intent to issue waste discharge requirements for the discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

21. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that the discharger, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Clean Water Act and regulations and guidelines adopted thereunder, shall comply with the following:

A. Discharge Prohibitions

1. Neither the treatment nor the discharge of pollutants shall create a pollution, contamination, or nuisance as defined by Section 13050 of the California Water Code.

2. The discharge shall be limited to treated groundwater and added chemicals which do not adversely affect the environment and comply with requirements of this Order.

3. The maximum monthly average flow shall not exceed 7200 gpd. If additional units, similar to the original treatment units, are provided additional flow may be permitted in proportion to the capacity of the additional units upon written approval of the Board's Executive Officer up to a maximum of 21,600 gpd.

B. Effluent Limitations

1. The effluent at the point of discharge to the storm drain shall not contain constituents in excess of the following limits:

Constituent	Unit	Instantaneous Maximum
a. Benzene	ug/l	0.5
b. Chloroform	ug/l	0.5
c. Methylene chloride	ug/l	0.5

Constituent	Unit	Instantaneous Maximum
d. 1,2-Dichloroethane	ug/l	0.5
e. 1,1,1-Trichloroethane	ug/l	0.5
f. Trichloroethene	ug/l	0.5
g. Toluene	ug/l	0.5
h. Xylenes	ug/l	0.5
i. Ethylbenzene	ug/l	0.5
j. Total Petroleum Hydrocarbons as gasoline and diesel	ug/l	50.0

2. The pH of the discharge shall not exceed 8.5 nor be less than 6.5

3. TOXICITY:

The survival of test fish in 96-hour static renewal bioassays of the discharge shall be a median of 90% survival and a percentile value of not less than 70% survival.

C. Receiving Water Limitations

1. The discharge of waste shall not cause the following conditions to exist in waters of the State at any place:

   a. Floating, suspended, or deposited macroscopic particulate matter or foam;

   b. Bottom deposits or aquatic growths;

   c. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;

   d. Visible, floating, suspended, or deposited oil or other products of petroleum origin;

   e. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife, or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.

2. The discharge of waste shall not cause the following

limits to be exceeded in waters of the State in any place within one foot of the water surface:

a. Dissolved oxygen: 5.0 mg/l minimum. The median dissolved oxygen concentration for any three consecutive months shall not be less than 80% of the dissolved oxygen content at saturation. When natural factors cause lesser concentration(s) than specified above, the discharge shall not cause further reduction in the concentration of dissolved oxygen.

b. pH: The pH shall not be depressed below 6.5 nor raised above 8.5, nor caused to vary from normal ambient pH levels by more than 0.5 units.

c. Un-ionized ammonia: 0.025 mg/l as N Annual Median 0.4 mg/l as N Maximum at any time

3. The discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Board or the State Water Resources Control Board as required by the Clean Water Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Clean Water Act, or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.

D. Provisions

1. The discharger shall comply with all sections of this Order immediately upon adoption.

2. The discharger shall comply with the Self- Monitoring Program as adopted by the Board and as may be amended by the Executive Officer. As new groundwater extraction and treatment systems are completed, the schedule of monitoring specified in Part B, Table 1, of the Self-Monitoring Program will be reviewed.

3. The discharger shall notify the Regional Board if the self-monitoring program results, or if a discharge or any activity has occurred or will occur which would result in the discharge, on a frequent or routine basis,

of any toxic pollutant which is not limited by this Order.

4. The discharger shall monitor for heavy metals in its effluent under provisions of the Self-Monitoring Program to assess if such constituents will exist in the discharge on a frequent or routine basis and therefore should be limited by this Order.

5. This permit may be modified prior to the expiration date to include effluent limitations for toxic constituents determined to be present in significant amounts in the discharge through the comprehensive monitoring program included as part of this order.

6. The discharger shall comply with all items of the attached "Standard Provisions, Reporting Requirements and Definitions" dated December 1986 except Items A.10, B.2, B.3, C.8 and C.11.

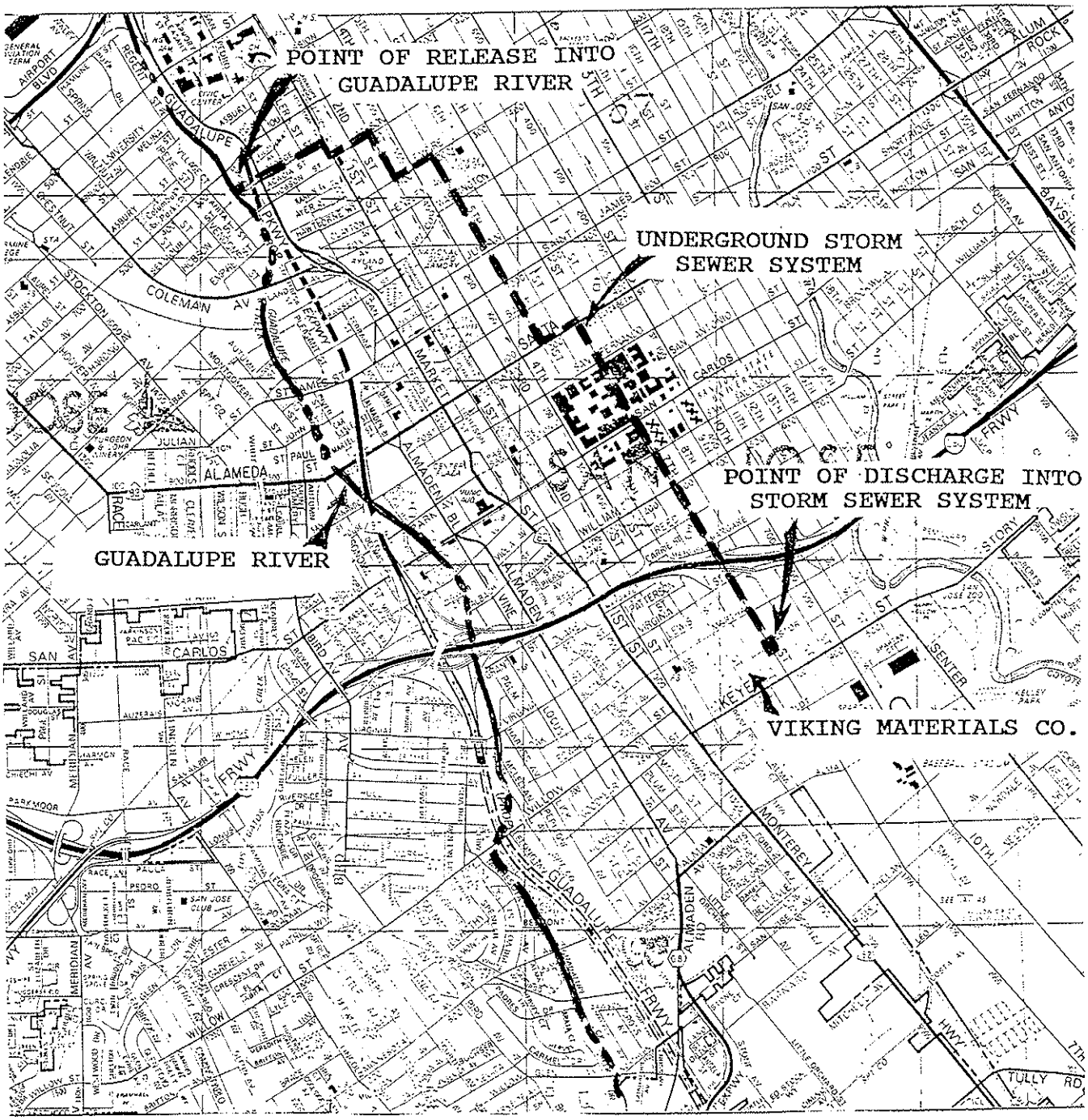
7. This Order expires January 17, 1995. The discharger must file a Report of Waste Discharge in accordance with Title 23, Chapter 3, Subchapter 9 of the California Administrative Code not later than 180 days in advance of such expiration date as application for issuance of new waste discharge requirements.

8. This Order shall serve as a National Pollutant Discharge Elimination System Permit pursuant to Section 402 of the Clean Water Act, or amendments thereto, and shall become effective 10 days after the date of its adoption provided the Regional Administrator, Environmental Protection Agency, has no objections. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn.

I, Steven R. Ritchie, Executive Officer do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region on January 17, 1990.

STEVEN R. RITCHIE
EXECUTIVE OFFICER

Attachments:
Attachment A (Site Map)
Standard Provisions & Reporting Requirements, December 1986.
Self-Monitoring Program



ATTACHMENT A

STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SITE LOCATION

Viking Materials Company
1060 S. Fifth Street
San Jose, Santa Clara County

DRAWN BY:	DATE:	DRWG. NO.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM

FOR

VIKING MATERIALS COMPANY

1060 SOUTH FIFTH STREET

SAN JOSE, SANTA CLARA COUNTY

NPDES NO. CA0029602

ORDER NO. 90-007

CONSISTS OF

PART A (dated December 1986 Mod. SBTD 1/23/87)

AND

PART B

Part B

SELF MONITORING PROGRAM FOR VIKING MATERIALS COMPANY
1060 SOUTH FIFTH STREET, SAN JOSE, SANTA CLARA COUNTY

I. DESCRIPTION OF SAMPLING STATIONS

A. INFLUENT

Station	
I-1	At a point after groundwater extraction and immediately prior to discharge to the treatment unit.

B. EFFLUENT

E-1	At a point after treatment but before discharge into the storm drain leading to Guadalupe River.

C. RECEIVING WATERS

C-1	At a point 50 feet upstream of discharge into Guadalupe River.
C-2	At a point 50 feet downstream of discharge into Guadalupe River.

II. START UP PHASE AND REPORTING

During the original start up for the treatment system, sampling of the effluent must occur daily for the first five days. On the first day of the original start up, the system shall be allowed to run for at least two hours and until stabilized; then, influent and effluent shall be sampled and submitted for analysis. Prior to receipt of the results of the initial samples, all effluent shall be discharged into a holding tank (that is contained, not discharged into the storm drain) until the results of the analyses show the discharge to be within the effluent limits established in the NPDES Permit. If the results of the analyses show the discharge to be in violation, the effluent shall be disposed in accord with the provisions of Chapter 15, Title 23, California Administration Code.

Analyses results of the second through fifth day samples must be received and reviewed by the discharger within 48 hours of the time samples are taken but discharge to the storm drain can continue as long as there are no violations. If a violation should occur, the discharge shall be directed to a holding tank and contained or the system shall be shut

down.

If the system is shut down more than 48 hours during the original start up (awaiting analyses results, etc.), the original start up procedures and sampling must be started again when start up is resumed. If the system is shut down after the start up period (maintenance, repair, violations, etc.) the reason for shut down, corrective action taken and the proposed start up procedures shall be reported to the Board within 15 days.

III. MISCELLANEOUS REPORTING

A report describing the need, method of chemical application and disposal shall be submitted to the Board at least 30 days before the use of any chemicals in the treatment, or operation and maintenance of the treatment units, is to begin.

IV. SCHEDULE OF SAMPLING AND ANALYSIS

The schedule of sampling and analysis shall be that given in Table 1 (attached).

V. BIOASSAY REQUIREMENT

The fish species to be used for compliance in the bioassay shall be rainbow trout.

VI. MODIFICATION TO PART A

A. Delete Sections:

D.1.a., D.2.a., D.2.d., D.2.e., D.2.g., D.2.h., E.3., and E.4.

B. Insert Sections:

D.2.a. Samples of effluent shall be collected at times coincident with influent sampling unless otherwise stipulated. The Regional Board or Executive Officer may approve an alternative sampling plan if it is demonstrated that expected operating conditions warrant a deviation from the standard sampling plan.

D.2.d. If analytical results are received showing any instantaneous maximum limit is exceeded, a confirmation sample shall be taken within 24 hours and results known within 24 hours of the sampling.

D.2.e. If any instantaneous maximum limit is exceeded in

the confirmation sample described in Section D.2.d., the discharge shall be terminated until the cause of the violation is found and corrected. For other violations, the discharger shall implement procedures that are acceptable to the Executive Officer on a case by case basis.

C. Modify Sections:

G.4. Written reports under G.4. shall be filed quarterly, by the 15th of January, April, July and October.

G.4.b. The report format shall be a format that is acceptable to the Executive Officer.

G.4.d. The report format shall be a format that is acceptable to the Executive Officer.

G.4.e. The report format shall be a format that is acceptable to the Executive Officer. NPDES Discharge Monitoring Report, EPA Form 3320-1, is provided as guidance. Influent and effluent data summary reports shall be submitted only to the Regional Board and do not need to be submitted to EPA.

I, Steven R. Ritchie, Executive Officer, do hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedures set forth in this Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board Order No. 90-007.

2. Was adopted by the Board on January 17, 1990.

3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the discharger, and revisions will be ordered by Executive Officer or Regional Board.

Steven R. Ritchie
Executive Officer

Attachments: Table 1
Appendices: A-E

TABLE 1

SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS
FOR VIKING MATERIALS COMPANY, SAN JOSE

SAMPLING STATION	I-1	E-1	C-1	C-2
Type of Sample	GRAB	GRAB	GRAB	GRAB
Flow Rate (gal/day)		C		
pH (units)	D/M	D/M	Q/V	Q/V
Temperature (deg. C)	D/M	D/M	Q	Q
Dissolved Oxygen (mg/l)	D/M	D/M	Q	Q
Electrical Conductivity	D/M	D/M	Q	Q
Priority Pollutant Metals	2/A	2/A		2/A
EPA 602 for: Benzene Toluene Total Xylenes Ethylbenzene	D/W/M	D/W/M		A/V
Modified EPA 8015 for Total Petroleum Hydrocarbons as gasoline and diesel	D/W/M	D/W/M		A/V
EPA 601*	D/W/M	D/W/M		V
Toxicity		A		

LEGEND FOR TABLE 1

* Concentrations of chloroform, 1,2-Dichloroethane, 1,1,1-Trichloroethane, trichloroethene, and methylene chloride shall be included in the determination, and the ten largest peaks in the chromatogram other than the priority pollutants listed in the method, shall be identified.

C = continuous flow readings: report average daily flow based on weekly total
M = once each month
D/M = daily for five days; monthly thereafter
Q = quarterly
V = sampling should be performed whenever E-1 is in violation
D/W/M = daily samples for the first five days during start-up; weekly thereafter until sufficient data indicates that the system is operating reliably to the

satisfaction of the Executive Officer.

2/A =once during the first day of operation; semi-annually thereafter.

A = once during the first week of operation; annually thereafter.